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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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22850	7590	12/12/2006	EXAMINER	
C. IRVIN MCCLELLAND OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			NGUYEN, KEVIN M	
			ART UNIT	PAPER NUMBER
			2629	

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/716,483	ROUX, NICOLAS	
	Examiner	Art Unit	
	Kevin M. Nguyen	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 02 October 2006.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-4,6-14 and 16-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-4,6-14 and 16-21 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 02 October 2006 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. 10/062671.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

Response to applicant's amendment/argument filed on 10/02/2006. Claims 10, 20 and 21 are amended. Applicant's arguments, see pages 7-12, with respect to the claims 1-4, 6-14, and 16-21 have been fully considered and are not persuasive. The rejections of claims 1-4, 6-14, and 16-21 based on prior art are maintained. The double patenting rejections are withdrawn.

Drawings

1. The drawings (figure 1) are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: a dialog device 1, a computer 3, left window screens E1 to E3 for pilot, right window screens E6 to E8 for copilot, a left cursor control device 5, a right cursor control device 5, a left auxiliary control device 8, a right auxiliary control device 8, at pages 8 and 9. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 6-8 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al (IDS cited, US 6,784,869) hereinafter Clark in view of Ebert et al (newly cited, US 5,931,874) hereinafter Ebert.
3. As to claim 1, Clark teaches a dialog method for dialog between an operator of an aircraft and at least one system of the aircraft, comprising the steps of:
 - displaying on a display at least one window including a plurality of responsive objects respectively associated with one of multiple functions of the at least one system of the aircraft [at least one display window 206 (fig. 2) includes a plurality of objects associated with one of multiple functions 210, see fig. 2, col. 6, lines 60-64];
 - moving a cursor on the display so as to designate a responsive object such that when the cursor is on the responsive object, a main object marker appears and designates the responsive object [a cursor control device (CCD) 212 (fig. 2) including a cursor moving mechanism. The cursor is placed on the desired menu item, see col. 5, lines 55-56, and col. 7, lines 48-65. Thus, the cursor is placed on the desired menu item corresponds to a main object marker as claimed];

displacing an auxiliary object marker on the display, responsive object by responsive object, so as to designate a responsive object [the switches 212a1, 212a2, and 212a3 (fig. 2A) corresponding to an auxiliary control device including a discrete moving mechanism, which jumps the cursor from display to display in the direction shown in, col. 6, lines 20-31, for further details of the explanation].

Accordingly, Clark et al teaches all of the claimed limitation of claim 1, except for "discretely displacing an auxiliary object marker on the display, responsive object by responsive object, so as to designate a responsive object without affecting control of the main object marker."

However, Ebert teaches discretely control setting for displacing an auxiliary object marker [44] on the display object [12] without affecting control of the main object marker [50], [see col. 6, line 65—col. 7, line 9, col. 7, lines 10-23, lines 39-59, and col. 10, line 66-col. 11, line 2, for further details of the operation].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the movement of the first cursor (50) and the second cursor (44) independently of each other (corresponding to displacing an auxiliary object marker on the display object without affecting control of the main object marker) as taught by Ebert for the intended use Clark's input devices in order to control the cursors, because this would improve user friendly interface is desired which allows the pilot to keep his or her hand on the aircraft's control stick and eyes on the multifunction display while selecting commands, reduces the number of operations

required by the pilot, reduces the number of functions that the pilot must memorize and allows faster response time (see Ebert, col. 2, lines 50-55).

4. As to claim 2, Clark further teaches comprising: activating a function associated with the responsive object designated by the main object marker; and activating a function associated with the responsive object designated by the auxiliary object marker [see col. 8, lines 15-43 for further details of the operation].

5. As to claim 3, Ebert teaches wherein the step of discretely displacing the auxiliary object marker [44] and the step of activating [activating the missile 12] the function associated with the responsive object designated by the auxiliary object marker is performed with keys on a separate stand-alone unit [a control stick 36] [see col. 7, lines 10-23, and lines 39-55 for further details of the operation].

6. As to claim 4, Ebert teaches wherein the responsive objects are arranged according to at least one direction defined on a corresponding window, and wherein the method further comprises the step of discretely displacing the auxiliary object marker from one responsive object to another responsive object in the at least one direction [see col. 7, lines 39-55 for further details of the operation].

7. As to claim 6, Clark teaches wherein the step of moving the cursor causes the cursor to move in a continuous manner on the display [see col. 6, lines 31-40 for further details of the explanation].

8. As to claim 7, Figure 4 of Clark expressly discloses wherein the at least one window includes a plurality of windows, and wherein the step of moving the cursor

moves the cursor discretely from one window to another window in the plurality of windows [see col. 6, lines 20-31 for further details of the explanation].

9. As to claim 8, Figure 4 of Clark expressly discloses wherein the display includes a plurality of displays, and wherein the step of moving the cursor moves the cursor from one display to another display in the plurality of displays [see col. 6, lines 20-31 for further details of the explanation].

10. As to claim 21, the dialog method according to claim 1, further comprising: removing the auxiliary object marker from the display screen when the main object marker and the auxiliary object marker designate a same responsive object, whereas Clark discloses "two cursors, left and right, are mutually exclusive--meaning that they cannot both be active on the same display. In the case where a first cursor is active on a display, and the second cursor is selected to that same display, the second cursor will "bump" or displace the first cursor from the display. The first cursor either moves to a default display or is not displayed until a display selection is made on the CCD controlling the first cursor" in col. 6, lines 46-53. Accordingly, the second cursor corresponds the main object marker, the first cursor corresponds the main auxiliary marker, the same display corresponds to the same responsive object, and "the auxiliary marker removing" corresponds to the first cursor is not displayed.

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clark in view of Ebert, and further in view of Oder et al (IDS cited, US 5,475,594) hereinafter Oder.

The combination of Clark and Ebert teaches all of the claimed limitation of claim 1, except wherein the step of discretely displacing the auxiliary object marker is activated during an emergency mode of the aircraft.

However, Oder teaches the key 39 which activates the emergency menu 52 (see fig. 6, col. 9, lines 34-45 for further details of the explanation).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement the auxiliary control device including the key 39 which activates the emergency menu 52 as taught by Oder in the auxiliary control device of Clark and Ebert, because one skilled in the art would recognize that this would provide the operator to access certain functions directly by a single action (pushing down the corresponding function key). These characteristics are obviously particularly advantageous in critical situations, and are reserved for particular functions, e.g. functions which are implemented when an important element (engine, etc.) of the aircraft fails.

12. Claims 10, 15-18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark in view of Bier (US 5,561,811).

13. As to claim 10, Clark teaches a dialog method for dialog between an operator of an aircraft and at least one system of the aircraft, comprising the steps of:

displaying on a display at least one window including a plurality of responsive objects respectively associated with one of multiple functions of the at least one system of the aircraft [see Figs. 2A];

activating a main object marker [a first cursor] appearing on a responsive object so as to initiate execution of a corresponding function of the at least one system; and activating an auxiliary object marker [a second cursor] appearing on the responsive object so as to initiate execution of another corresponding function of the at least one system without affecting the corresponding function executed by activating the main object marker [see Figs. 2A, 4 and 5, col. 6, lines 20-53, and col. 8, lines 15-43 for further details of the explanation].

Accordingly, Clark teaches all of claimed limitation of claim 10, except for providing a priority of movement on the display screen to the main object marker over the auxiliary object marker when the main object marker and the auxiliary object marker are located on a same window.

However, figure 8 of Bier teaches two users via red cursor 64 and blue cursor 65 simultaneously working on the same rectangular object 66 in col. 6, lines 11-22. Bier further teaches the processing of input events in which the red cursor 64 runs at a high priority over the blue cursor 65 in col. 8, lines 23-36. Accordingly, the red cursor 64 corresponds to the main object marker as claimed, the blue cursor 65 corresponds to the auxiliary object marker as claimed.

14. As to claim 16, Clark teaches wherein the step of moving the cursor causes the cursor to move in a continuous manner on the display [see col. 6, lines 31-40 for further details of the explanation].

15. As to claim 17, Figure 4 of Clark expressly discloses wherein the at least one window includes a plurality of windows, and wherein the step of moving the cursor

moves the cursor discretely from one window to another window in the plurality of windows [see col. 6, lines 20-31 for further details of the explanation].

16. As to claim 18, Figure 4 of Clark expressly discloses wherein the display includes a plurality of displays, and wherein the step of moving the cursor moves the cursor from one display to another display in the plurality of displays [see col. 6, lines 20-31 for further details of the explanation].

17. As to claim 20, the dialog method according to claim 10, further comprising: removing the auxiliary object marker from the display screen when the main object marker and the auxiliary object marker designate a same responsive object, whereas Clark discloses "two cursors, left and right, are mutually exclusive--meaning that they cannot both be active on the same display. In the case where a first cursor is active on a display, and the second cursor is selected to that same display, the second cursor will "bump" or displace the first cursor from the display. The first cursor either moves to a default display or is not displayed until a display selection is made on the CCD controlling the first cursor" in col. 6, lines 46-53. Accordingly, the second cursor corresponds the main object marker, the first cursor corresponds the main auxiliary marker, the same display corresponds to the same responsive object, and "the auxiliary marker removing" corresponds to the first cursor is not displayed.

18. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Clark to make two users via red cursor 64 and blue cursor 65 simultaneously working on the same rectangular object 66, and the processing of input events in which the red cursor 64 runs at a high priority over the

blue cursor 65 as taught by Bier, because this would capability reduce interference between users (see Bier, col. 7, lines 45-53).

19. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark in view of Bier as applied to claim 10 above, and further in view of Ebert.

20. As to claim 11, the combination of Clark and Bier teaches all of the claimed limitation of claim 10, except further comprising: moving a cursor on the display so as to designate a responsive object such that when the cursor is on the responsive object, the main object marker appears and designates the responsive object; and discretely displacing the auxiliary object marker on the display, responsive object by responsive object, so as to designate a responsive object without affecting control of the main object marker.

However, Ebert teaches that limitation indicated above [see Figs. 3 and 4, col. 6, line 65—col. 7, line 9, col. 7, lines 39-59, and col. 10, line 66-col. 11, line 2, for further details of the operation].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the movement of the first cursor (50) and the second cursor (44) independently of each other (corresponding to displacing an auxiliary object marker on the display object without affecting control of the main object marker) as taught by Ebert for the intended use the combination of Clark and Bier in order to control the cursors, because this would improve user friendly interface is desired which allows the pilot to keep his or her hand on the aircraft's control stick and eyes on the multifunction display while selecting commands, reduces the number of

operations required by the pilot, reduces the number of functions that the pilot must memorize and allows faster response time (see Ebert's col. 2, lines 50-55).

21. As to claim 12, Clark further teaches comprising: activating a function associated with the responsive object designated by the main object marker; and activating a function associated with the responsive object designated by the auxiliary object marker [see Figs. 2A, 4 and 5, col. 6, lines 20-53, and col. 8, lines 15-43 for further details of the explanation].

22. As to claim 13, Ebert teaches wherein the step of discretely displacing the auxiliary object marker [44] and the step of activating [activating the missile 12] the function associated with the responsive object designated by the auxiliary object marker is performed with keys on a separate stand-alone unit [a control stick 36] [see col. 7, lines 10-23, and lines 39-55 for further details of the operation].

23. As to claim 14, Ebert teaches wherein the responsive objects are arranged according to at least one direction defined on a corresponding window, and wherein the method further comprises the step of discretely displacing the auxiliary object marker from one responsive object to another responsive object in the at least one direction [see col. 7, lines 39-55 for further details of the operation].

24. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clark in view of Bier as applied to claim 10 above, and further in view of Oder.

Clark teaches all of the claimed limitation of claim 10, except wherein the step of discretely displacing the auxiliary object marker is activated during an emergency mode of the aircraft.

However, Oder teaches the key 39 which activates the emergency menu 52 (see fig. 6, col. 9, lines 34-45 for further details of the explanation).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement the auxiliary control device including the key 39 which activates the emergency menu 52 as taught by Oder in the auxiliary control device of Clark, because one skilled in the art would recognize that this would provide the operator to access certain functions directly by a single action (pushing down the corresponding function key). These characteristics are obviously particularly advantageous in critical situations, and are reserved for particular functions, e.g. functions which are implemented when an important element (engine, etc.) of the aircraft fails.

Response to Arguments

25. Applicant's arguments filed 10/02/2006 have been fully considered but they are not persuasive.

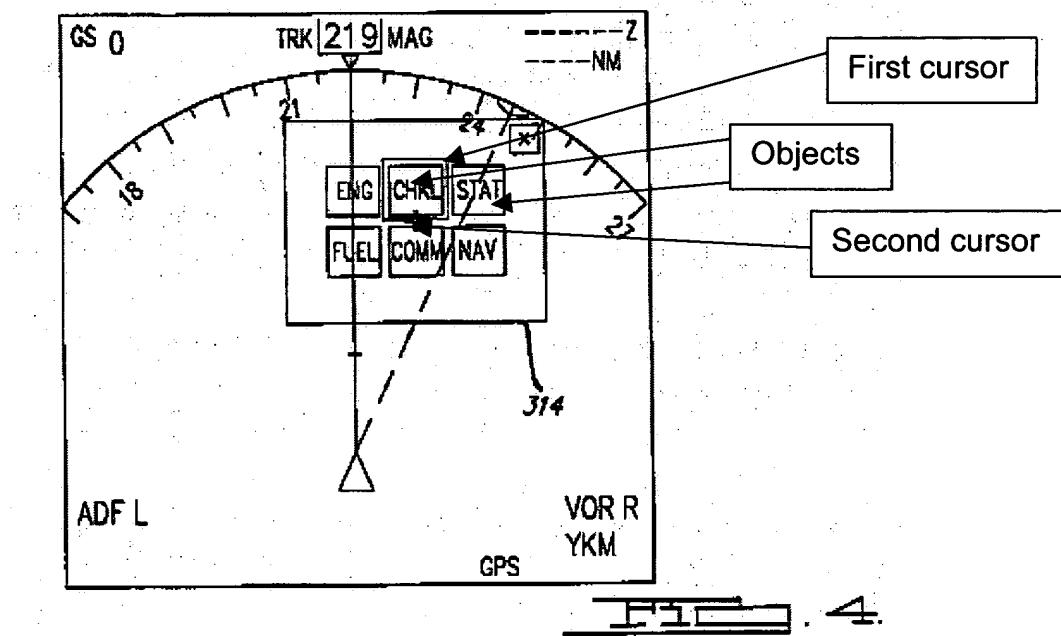
26. With respect to the objection of drawing [see remarks at page 7], the examiner respectfully disagrees as failing to comply with 37 CFR 1.84(p)(5) because they do not include all the labels listed in the specification corresponding to figure 1.

27. Applicant argues with respect to claim 1 recited "discretely displacing an auxiliary object marker on the display, responsive object by responsive object, so as to designate a responsive object without affecting control of the main object marker" see remarks at pages 9 and 10. In response, the examiner respectfully disagrees. As stated *infra* with respect to claim 1, the examiner finds that Clark discloses "pressing a switch, 212a₁,

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212a₂ or 212a₃, once would jump the cursor on display in the direction indicated.

Holding the switch depressed would jump the cursor from display to display in the direction shown" see col. 6, lines 26-30. Accordingly, the feature "jump the cursor" corresponds to "moving cursor discretely" as claimed. As indicated the figure 4ⁱ given below, a first cursor corresponds to an auxiliary cursor, which moves discretely from one responsive object to another responsive object as recited claims 1 and 12 (see col. 5, lines 29-50 for further details of the explanation).



Furthermore, Ebert teaches discretely control setting for displacing an auxiliary object marker [44] on the display object [12] without affecting control of the main object marker [50], [see col. 6, line 65—col. 7, line 9, col. 7, lines 10-23, lines 39-59, and col. 10, line 66-col. 11, line 2, for further details of the operation]. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Ebert into Clark to create the claimed invention. In response to

applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to modify Clark to make the movement of the first cursor (50) and the second cursor (44) independently of each other (corresponding to displacing an auxiliary object marker on the display object without affecting control of the main object marker) as taught by Ebert in order to control the cursors, because this would improve user friendly interface is desired which allows the pilot to keep his or her hand on the aircraft's control stick and eyes on the multifunction display while selecting commands, reduces the number of operations required by the pilot, reduces the number of functions that the pilot must memorize and allows faster response time (see Ebert, col. 2, lines 50-55).

28. With respect to remarks at pages 10 and 11, "If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)." In response, the examiner respectfully disagrees because this patent law related to the chemical experience which is nothing to be related to the currently computer input device's invention. In response, the examiner finds that "Whether an art is predictable or whether the proposed

modification or combination of the prior art has a reasonable expectation of success is determined at the time the invention was made. *Ex parte Erlich*, 3 USPQ2d 1011 (Bd. Pat. App. & Inter. 1986)." The examiner also finds in this case at the time this invention was made, one of ordinary skill in the art would have been motivated to produce the claimed invention as recited in claim 1 using the combined apparatuses of Clark, Bier, Ebert, Yoshino, and Oder with a reasonable expectation of success." 3 USPQ2d at 1016 (emphasis in original).). See MPEP §2143.02.

29. Applicant argues features in the amended independent claim 10 with added the limitation of dependent claim 15, e.g., "priority of the main cursor over the auxiliary cursor" which causes dependent claims 11-14 and 16-20 raises new issues, because the previous rejection of the dependent claims 11-14 and 16-20 has not recited the new limitation of said dependent claim 15. Thus, new grounds of rejection have been moot.

30. Applicant argues features in the amended claims 20 and 21 that are newly recited. Thus, new grounds of rejection have been moot.

For these reasons, the rejections based on Clark, Bier, Ebert, Yoshino, and Oder have been maintained.

Conclusion

31. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN M. NGUYEN whose telephone number is 571-272-7697. The examiner can normally be reached on MON-THU from 8:00-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, a supervisor RICHARD A. HJERPE can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8000.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the Patent Application Information Retrieval system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin M. Nguyen
Patent Examiner
Art Unit 2629

KMN
December 7, 2006



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

¹ It is respectfully submitted that in the case law stated "Drawing as a Reference", "Things clearly shown in reference patent drawing qualify as prior art features, even though unexplained by the specification". See *In re Mraz*, 173 USPQ 25 (CCPA 1972). "A claimed invention may be anticipated or rendered obvious by a drawing in a reference, whether the drawing disclosure by accidental or intentional. However, a drawing is only available as a reference for what it would teach one skilled in the art who did not have the benefit of applicant's disclosure". See *In re Meng*, 181 USPQ 94, 97 (CCPA 1974). "Absent of any written description in the reference specification of quantitative values, arguments based on measurement of a drawing are of little value in proving anticipation of a particular length". See *In re Wright*, 193 USPQ 332, 335 (CCPA 1977).